

information at the local Wildlife Department, to determine the current distribution and status of *Antilope cervicapra* in Buenos Aires province.

There are 11 game ranches (50% of the total legally established ranches) with blackbuck populations. The sport hunting season traditionally opens from March 15 and extends to December 31, based on the notion that fawns are born in summer (January and February). Despite this, there are records from captive and wild populations about females giving birth throughout the year. 53 male trophies have been legally taken from game ranches in 1995, 44 in 1996 and 103 in 1997, most of them by foreign hunters. In 1997, there was at least one permit issued for commercial harvesting.

The previous record of distribution (Galliari *et al.* 1991) has now been expanded. We confirmed the occurrence of blackbuck at the Chascomús, General Belgrano, Castelli, Bahía Blanca and Guamini departments. Additionally, new records were made for the species at Pila, Dolores, Adolfo Alsina, Coronel Suarez and Coronel Dorrego departments. The biggest and

better established population has its nucleus in 'La Corona' and 'La Guarida del Zorro' game ranches, an area of approximately 12,000 ha, in General Belgrano near the Chascomús district boundary. In 1996, from preliminary line transect censuses, we estimated a population of above 6,000 animals, with a density of 0.56 individual per hectare. However, in 1997, the population was commercially harvested for the meat market, showing a marked decline since this event. We suggest further studies on the species' impact on local biota, to stop uncontrolled translocations, and a closer monitoring of the effect of sport and commercial harvesting on the blackbuck.

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5. INCIDENCE OF AN ELEPHANT CALF *ELEPHAS MAXIMUS* TRAPPED BETWEEN TWO TREE TRUNKS

The first year is considered to be the most vulnerable stage in an elephant's life, when mortality rate ranges from 10% to 30% (Douglas 1972, Barnett 1991). Annual mortality rate of elephant calves aged less than one year is reported to be 36% in Tsavo National Park, Kenya (Laws 1969). Studies on annual mortality

rate in Indian elephant calves (*Elephas maximus*, age <5 years), in Biligiri Rangan Temple Wildlife Sanctuary, South India, was reported to be 4-5% in female and 8-9% in male elephants (Sukumar 1989). Elephant calves are known to die of diseases, intra-specific fights, drowning in floods, landslides, tiger predation, snake bite poisoning,

accidents (including falling off cliffs, bridges, into trenches, drains) in the wild (Asian Elephant Research and Conservation Centre (AERCC), unpublished data; Daniel 1998). About 9.5% of the 208 records, scanned from 1975-1994, of elephant calf deaths were accidental (AERCC, unpublished data).

Among the known causes of death, or near death situations due to accidents, getting trapped between tree trunks is very rare. We observed one such incident on the morning of May 4, 1999, during fieldwork under the Karnataka Tiger Conservation Project at Kaimara, Nagarhole National Park, South India: An elephant calf, estimated to be ten months old, was found trapped between two tree trunks (c. 30 cm diameter at breast height), which were less than 30 cm apart. The calf probably got trapped the previous night, since we heard elephants trumpeting in the area throughout the night and till the following forenoon.

The calf was exhausted and had blood trickling down its forehead. Amongst the many who had gathered there, four of us tried to release it by lifting and pushing it across the fork. We failed to lift the calf high enough to release it. In the process, the calf jerked itself free from us and relapsed into its original trapped position. As the elephant herd was moving closer, we fled the spot. Two kurubas (local tribesmen) bravely went back after some time and released the calf. It rested for about ten minutes after its release and then moved dizzily down to the nearby stream. After a couple of hours, the calf was no longer found in the vicinity and it was presumed to have rejoined its herd. Had the calf not been rescued, it is possible that it would have died of starvation, dehydration, predation, or injuries caused by the herd trying to extricate it. The tribesmen mentioned that it was the second such incident that they had witnessed, the first one being a few years ago in the forest adjoining the Park.

Two similar incidents are worth adding to this note. Mr. Kullayya, Mahout, Karnataka Forest Department, recollected a similar incident (*pers. comm.*) which had occurred a decade ago. The foreleg of an elephant calf (c. 5 years old) was trapped between the roots (diameter c. 30 cm) of a tree abutting a stream near Sunkadakatte Forest Rest House, Nagarhole National Park, the calf had a slip in the shoulder joint and its legs were swollen. The entangling tree root was cut to free the calf, which was later treated at the camp. Nevertheless, the calf could not recover and died after a month.

In 1997, according to Dr. Nanjappa (*pers. comm.*), Veterinary Officer, Karnataka Forest Department, the leg of an elephant calf (c. 2 years old) was trapped between boulders in the steep terrain of Maddur Range, Bandipur National Park. The incident was reported to the veterinarian two days later. The Forest Department personnel had to break the boulders to free the calf, which had a concussion and its legs were swollen. The calf was given fluid therapy, but it did not recover even after medical treatment and died the following day.

Though it is difficult to imagine that such incidents occur in the wild, we suggest that this could be considered as one of the causes of infant mortality among wild elephants.

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6. A NOTE ON SOME FOOD PLANTS OF THE MALAYAN GIANT SQUIRREL *RATUFA BICOLOR* IN GIBBON WILDLIFE SANCTUARY, JORHAT, ASSAM

The Malayan giant squirrel (*Ratufa bicolor*) is arboreal (Prater 1980). During our studies on plant-animal interaction with special reference to primates of Gibbon Wildlife Sanctuary (WLS), Assam, we noted some interesting dietary habits of the Malayan giant squirrel. Gibbon WLS is a newly constituted sanctuary situated about 20 km southeast of Jorhat town in upper Assam and lies between 26° 40'-26° 45' N and 94° 20'-94° 25' E. Prior to its declaration as a sanctuary it was a reserve forest under the eastern Assam forest circle. The sanctuary is famous for its diversity in primate species, 7 non-human primate species being found within 19.5 sq. km fragmented forest habitat (Bujarbarua and Chetry 1999). All the records were made between October 1998-September 1999.

Ratufa bicolor fed on parts of 37 plant species in Gibbon WLS. Most of the food plants were identified on the spot, the unidentified specimens were collected and later identified in the herbarium of the Botany Department, Gauhati University, with the help of FLORA OF ASSAM (Kanjilal 1940). All the food plants are trees and are listed in Appendix I, with parts eaten by the squirrel.

The squirrel primarily fed on pericarp and sometimes on fruit pulp. In some cases, it consumed the seeds. The squirrel gnaws at the pericarp of the fruits and eats the cotyledons. Insect larvae (mainly those of ants) and small spiders are also eaten.

From our observations, *Ratufa bicolor* is certainly frugivorous. Morton (1973) has noted that among frugivorous birds there may be intense selection pressure, favouring the ability to exploit a wider variety of food in periods of fruit scarcity. The Malayan giant squirrel, which feeds mainly on fruits, probably experiences the same selection pressure, and may take to a broad array of foods during periods of fruit shortage.

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